

CLAIMS

1. An etching solution comprising hydrofluoric acid, wherein a ratio of an etch rate of a boron silicate glass film (BSG) or boron phosphosilicate glass / an etch
5 rate of a thermal oxide film (THOX) at 25°C is 10 or higher.

2. The etching solution according to claim 1, wherein a solvent in the etching solution has a relative dielectric constant of 61 or lower.

10 3. The etching solution according to claim 1, the solution containing at least one member selected from the group consisting of an organic acid and an organic solvent having a hetero atom.

15 4. The etching solution according to claim 1, the solution containing (i) water and (ii) at least one member selected from the group consisting of an organic acid and an organic solvent having a hetero atom, the water being contained in a concentration of 70% by weight or lower.

20 5. The etching solution according to claim 1, wherein the weight ratio of HF : isopropyl alcohol : water is 0.1-50% by weight : 30-99% by weight : 0-70% by weight.

25 6. The etching solution according to claim 1, wherein the weight ratio of HF : acetic acid : water is

0.1-50% by weight : 30-99.9% by weight : 0-70% by weight.

7. The etching solution according to claim 1, wherein the weight ratio of HF : tetrahydrofuran : water is 0.1-50% by weight : 30-99.9% by weight : 0-70% by

5 weight.

8. The etching solution according to claim 1, wherein the weight ratio of HF : acetone : water is 0.1-50% by weight : 30-99.9% by weight : 0-70% by weight.

9. The etching solution according to claim 1, wherein the weight ratio of HF : methanol : water is 0.1-50% by weight : 30-99.9% by weight : 0-70% by weight.

10. The etching solution according to claim 1, wherein the weight ratio of HF : ethanol : water is 0.1-50% by weight : 30-99.9% by weight : 0-70% by weight.

11. The etching solution according to claim 1, the solution comprising an inorganic acid.

12. The etching solution according to claim 11, wherein the inorganic acid has a pKa value at 25°C of 2 or lower.

13. The etching solution according to claim 11, wherein the weight ratio of HF : HCl : water is 0.01-50% by weight : 1-36% by weight : 0-99% by weight.

14. The etching solution according to claim 11, wherein the weight ratio of HF : HNO₃ : water is 0.01-50% by weight : 1-70% by weight : 0-99% by weight.

2A1 15. A method for producing an etched article by etching an article to be etched with the etching solution as defined in any of claims 1-14.

16. An etched article which is obtainable by
5 the method of claim 15.

$$\begin{array}{ccccccc} \left[\begin{array}{c} \{1\} \\ \{2\} \\ \vdots \\ \{n\} \end{array} \right] & \left[\begin{array}{c} \{1\} \\ \{2\} \\ \vdots \\ \{n\} \end{array} \right] & \left[\begin{array}{c} \{1\} \\ \{2\} \\ \vdots \\ \{n\} \end{array} \right] & \left[\begin{array}{c} \{1\} \\ \{2\} \\ \vdots \\ \{n\} \end{array} \right] & \left[\begin{array}{c} \{1\} \\ \{2\} \\ \vdots \\ \{n\} \end{array} \right] & \left[\begin{array}{c} \{1\} \\ \{2\} \\ \vdots \\ \{n\} \end{array} \right] & \left[\begin{array}{c} \{1\} \\ \{2\} \\ \vdots \\ \{n\} \end{array} \right] \\ \text{first} & \text{second} & \text{third} & \text{fourth} & \text{fifth} & \text{sixth} & \text{seventh} \end{array}$$